

Mobile Sodium Nitrite Wastewater Treatment System



**Sodium Nitrite Wastewater
Treatment in Conjunction
With Boiler Waterjet Operation
on the Pier**

Benefits:

- ◆ \$5M savings/year for shipyards
- ◆ \$10M savings/year for Navy wide boiler maintenance operations

Break Even Point and Return on Investment

- ◆ \$50,000
- ◆ 1 year

Status

Mobile unit tested at SIMA San Diego and NAVACT Sasebo endorsed by Commander, Naval Surface Force, U.S. Pacific Fleet

Crash Fire Rescue Truck Foam- Free Nozzle Testing



AFFF Foam Concentration and Distribution Pattern Tests

Benefits

- ◆ Environmentally benign dye solution satisfies test requirements
- ◆ Disposal savings \$8M Navy wide
- ◆ Disposal savings \$35M DOD wide
- ◆ Avoid >\$1M AFFF Facility

Break Even Point and Return on Investment

- ◆ \$10,000
- ◆ < 1 month

Status

- ◆ Endorsed by NAVFAC Fire Marshall
- ◆ Endorsed by Navy and Marine Corps Fire Fighting Communities
- ◆ Test kits developed for 2 types of CFR's
- ◆ Test kits being developed for 2 additional CFR vehicles

Bilge Oily Wastewater Treatment System



BOWTS

Benefit

- ◆ Reduces disposal costs (from \$0.25 to < \$0.02/gal)
- ◆ Meets IWTP discharge limits

Break even point and Return on Investment

- ◆ \$600,000
- ◆ 1- 2 years

Status

- ◆ 9 Implemented
- ◆ 1 Under design/construction
- ◆ Over 50 Mgal processed

PLASTIC MEDIA BLAST BOOTH



Activities use the abrasive blasting booth for the removal of lead based paint from Ground Support Equipment (GSE). Activities use blast booths to replace hand sanding (labor intensive) or methylene chloride (toxic chemical) stripping.

The system consists of the blasting enclosure (varying sizes), blasting equipment, dust collector, compressed air system, air dryer, and PPE.

Benefits

- ◆ Replaces methylene chloride stripping and manual sanding
- ◆ Reduces hazardous waste generation and labor required for coating removal
- ◆ Reduces generation of VOCs and other toxic emissions from chemical strippers.
- ◆ Reduces worker exposure to toxic chemicals

Break Even Point and Return on Investment

- ◆ \$90,000
- ◆ 2.7 years

Status

- ◆ PMB continues to be implemented Navywide

WET TO DRY FILTER PAINT BOOTH CONVERSION



Conversion of the booth's Particulate Emission Control (PEC) system from water curtain to dry filter system is an inexpensive procedure which can be performed by in-house personnel. A series of filter pads are placed along the back wall of the booth, prior to the exhaust fan, using a steel frame. The dry filters are periodically removed and replaced with a new filter when the pressure across the filters drops below a determined value. No hazardous wastewater or sludge is generated as before.

Benefits

- ◆ Eliminate hazardous waste (Paint Sludge) generation
- ◆ Reduce Maintenance Cost of Paint Booth
- ◆ Improve Working Environment
- ◆ Reduce disposal costs

Break Even Point and Return on Investment

- ◆ \$81,250 (per 10-year period)
- ◆ 0.3 years

Status

- ◆ Dry filter conversions continue to be implemented Navywide